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INTERGOVERNMENTAL NEGOTIATING COMMITTEE
FOR A FRAMEWORK CONVENTION ON CLIMATE CHANGE

EXECUTIVE SUMMARY OF THE NATIONAL COMMUNICATION OF

GERMANY

submitted under Articles 4 and 12
of the
United Nations Framework Convention on Climate Change

In accordance with decision 9/2 of the Committee, the interim secretariat is to make available, in the official languages of the United Nations, the executive summaries of the national communications submitted by Annex I Parties.

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Copies of the German national communication
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GERMANY

1. The United Nations Framework Convention on Climate Change provides an internationally binding basis for combatting the anthropogenic greenhouse effect. With this first report of the Federal Government to the Conference of the Parties, Germany has fulfilled its obligation pursuant to the Framework Convention's Article 12.

2. In August 1993, a preliminary report was presented entitled "Climate Protection in Germany - National Report of the Federal Government for the Federal Republic of Germany in anticipation of Article 12 of the United Nations Framework Convention on Climate Change". The present report is an updated, substantially revised and expanded version of that preliminary report.

3. Until their unification on 3 October, 1990, the two parts of Germany belonged to two different political blocs; this added to the difficulty of preparing this report. As a result of the long separation, data in many areas is not comparable; where this is the case, the data has been presented separately - even for the period after 1990.

Inventories of anthropogenic emissions and binding in reservoirs and by sinks

Anthropogenic emissions

4. Table I provides a summary of emissions of the most important greenhouse gases (with the exception of chlorofluorocarbons (CFCs), chlorocarbons (CCs) and halons) in Germany in 1990.

5. The "IPCC Draft Guidelines for National Greenhouse Gas Inventories" were used.

6. Carbon dioxide (CO_2), methane (CH_4) and laughing gas (N_2O) are directly climate-relevant; nitrogen oxides (NO_x), carbon monoxide (CO) and methane-free volatile organic compounds (NMVOC), on the other hand, have an indirect effect, because they contribute to formation of ozone, which is climate-relevant, in the lower atmosphere (troposphere).

7. The emissions data for CO_2, NO_x, and CO can be considered well-founded, as can the data for NMVOC, with some exceptions, while the data for CH_4 and, especially, for N_2O, must be considered subject to major uncertainties.

8. Figure I (see full text of the communication) shows the development over time, from 1970 to 1993, of CO_2 emissions, pursuant to data from the Federal Environment Agency; Figure II (See full text of the communication) shows the development of CH_4 emissions from 1970 to 1992. The database that would permit a similar representation for N_2O is lacking.

9. CO_2 emissions in Germany (not including high-seas bunkering and international air transport) decreased from 1,068 million tonnes in 1987 (the reference year for the Federal Government's CO_2-reduction resolution) to 911 million tonnes in 1993. This corresponds to a 14.7% reduction within this period. In the area of the former GDR, CO_2 emissions decreased by nearly 50% during this period (the main reasons for this decrease were economic restructuring, a reduction in population size by about 6%, a partial transfer of production to former West Germany, improvements in energy-use efficiency and a decrease in consumption of lignite, which is an intensive source of CO_2 emissions). CO_2 emissions in former West Germany were some 2% higher in 1993 than they were in 1987, but the population in the area of former West Germany also grew by some 7% from 1987 to 1993.

10. From 1987 to 1993, energy-related per-capita CO_2 emissions in Germany (not including high-seas bunkering and international air transport) decreased from 13.4 to 10.9 tonnes per inhabitant (a decrease of 18.7%). In the area of former West Germany, the decrease over the same period was about 4% (from 11.4 to 10.9 tonnes per inhabitant), while in the area of the former GDR it was about 45% (from 20.5 to 11.2 tonnes per inhabitant).

11. Methane emissions in Germany decreased by some 12% between 1970 and 1992, to 6,200 kilotonnes per year. In contrast with the decreasing emissions in former West Germany, emissions in the area of the former GDR increased until 1989. This trend was reversed in 1990, however, through a drastic reduction in livestock inventories.

12. Nitrogen oxide emissions in Germany decreased by some 4% between 1975 and 1991 - to 2,900 kilotonnes per year. Emissions increased until about the mid-1980s; since then, they have been decreasing.

13. Carbon monoxide emissions decreased relatively constantly from 1975 to 1991, reaching 9,400 kilotonnes per year, for a total decrease of 45%.

14. Emissions of methane-free volatile organic compounds decreased by about 11% from 1975to 1991; in 1991 they were 2,850 kilotonnes per year.

Binding in reservoirs and by sinks

15. The amount of carbon stored in Germany's forests is estimated as being between 1.5 to 2.0 billion tonnes (5.5 to 7.4 billion tonnes of CO_2). The annual carbon-level increase in the existing 10.8 million hectares of forest is some 5.4 million tonnes (some 20 million tonnes of CO_2). This corresponds to an annual increase of carbon stored in forests of about 0.3 to 0.4%. The ability of these reservoirs to store additional carbon ends when forests reach maturity - and thus their maximum biomass levels - however. Currently, it is not possible to estimate when this takes place.

Effects of climate change and adaptation measures

16. Climate-modelling calculations have shown that as a result of the increase of greenhouse gases in the atmosphere, increases in global mean temperature and rises in ocean levels must be expected, along with changes in precipitation distribution and shifts in frequency of extreme weather events. Even if no reliable figures are available concerning the regional climate changes that must be expected, particularly endangered areas can be identified, on the basis of natural and anthropogenic systems' specific sensitivity to climate.

17. For example, pronounced consequences of the anthropogenic greenhouse effect are to be expected in the earth's semiarid regions, changes which, in particular, could lead to increases in migratory movements.

18. In Germany, it is mainly natural and near-natural ecosystems that seem threatened, when the country's geographic and climatic conditions are considered. Effects on water resource management and on agriculture and forestry, which are particularly sensitive to climatic influences, have a more direct influence on human living conditions. Considerable uncertainty prevails concerning further economic and social effects of climate change. This uncertainty applies to economic activities (including industry and tourism) and to quality of human life (health, food, housing, etc.)

19. If only for the reason that a considerable time lag can occur between greenhouse-gas emissions and the effects of climate change, precaution demands that we act, in our own interest and in the interest of future generations - even if not all questions concerning the complex scientific interrelationships, the extent and, especially, the effects of climate change, have been answered. The Federal Government considers measures for reducing emissions of climate-relevant gases to have priority. It is also emphasising research into the consequences of climate change, however, in order to develop effective strategies for adaptation to the effects of such change, which cannot be ruled out, in spite of a wide range of efforts to reduce emissions of greenhouse gases.

Programme of measures to reduce emissions of climate-relevant gases and for binding them in reservoirs and by sinks

20. The Federal Government acted early to develop a comprehensive national climate-protection strategy. The CO_2-reduction programme is the heart of this strategy.

21. In light of the world-wide discussion concerning the additional, anthropogenic greenhouse effect, and the resulting climate change and effects, the Federal Government is aiming to respond to this global challenge with an ambitious goal for reducing energy-related CO_2 emissions. It has prepared a comprehensive reduction concept whose measures are currently being implemented on a step-by-step basis.

22. By means of resolutions of 13 June, 1990, 7 November, 1990 and 11 December, 1991, the Federal Cabinet approved a comprehensive CO_2-reduction programme. Its aim in this connection is to reduce CO_2 emissions by 25% to 30% by the year 2005, in relation to the emissions volume in 1987. The Federal Government is aware of the difficulty of achieving this, a difficulty that is also due to the changed global framework. Reduction of other climate-relevant emissions - such as methane (CH_4), nitrous oxide (N_2O), nitrogen oxides (NO_x), carbon monoxide (CO) and methane-free volatile organic compounds (NMVOC) - is also taken into account in the national climate-protection strategy.

23. Overall, the Federal Government is aiming to achieve a reduction of all climate-relevant emissions - expressed in terms of CO_2 equivalents - on an order of 50% by the year 2005 - in relation to 1987 levels.

24. With its resolutions to date, the Federal Government has approved a broad catalogue of measures for exploiting the existing potential for reducing emissions of CO_2 and other greenhouse gases in the following areas:

- Private households and small consumers,
- Traffic and transport,
- Industry,
- The energy industry,
- The waste-management sector,
- Agriculture and forestry.

25. In addition to economic instruments, which have a special role in the CO_2-reduction programme, climate-protection instruments include regulatory requirements, information and consultation programmes and education and training.

26. With its resolution of 13 June, 1990, the Federal Cabinet established a CO_2-reduction Interministerial Working Group (IWG), under the leadership of the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety. At the same time, the Cabinet set up working groups, within the CO_2-reduction IWG framework, on the following topic areas:

- Energy supply (management: Federal Ministry of Economics),
- Traffic and transport (management: Federal Ministry of Transport),
- Buildings and structures (management: Federal Ministry for Regional Planning, Building and Urban Development),
- New technologies (management: Federal Ministry for Research and Technology),
- CO_2 reduction in the areas of agriculture and forestry, including CO_2 sinks (management: Federal Ministry of Food, Agriculture and Forestry).

27. In addition to the above-named ministries, the working group comprises representatives of the Federal Chancellery, of the Federal Foreign Office and of the federal ministries of

Finance; of Labour and Social Affairs; of Economic Cooperation and Development; of Defence; and of Education and Science.

28. In the summer of 1994, the CO_2-reduction IWG will present its 3rd report to the Federal Cabinet; the findings it contains have been taken into account in the present report.

29. The present report contains a very comprehensive catalogue of measures. On the one hand, this catalogue provides an overview of approved and implemented measures to date; on the other, it lists measures that are currently being approved by the appropriate decision-making bodies, or whose approval is currently being prepared or is planned. This very comprehensive catalogue of measures is aimed both at the energy-supply sector and at all energy-consuming sectors. It comprises the areas of private households and small consumers, traffic and transport, industry, the energy industry, the waste-management industry and agriculture and forestry.

30. In addition to economic instruments, the range of climate-protection tools includes regulatory requirements, research and technology development, information and consultation programmes and education and training.

31. Table II provides an overview of the some 100 individual measures that are contributing to reduction of emissions of CO_2 and other greenhouse gases.

32. An important factor in the success of climate-protection policy in Germany will be whether all those involved truly cooperate. The Federal Government alone will not be able to locally implement such an intensive programme - a programme that affects economic and social structures. For this reason, the climate-protection strategy must be diffused to all the various levels, and to each individual involved. The Federal Government is of the opinion that the effort to accomplish this, which has been underway since 1990, has been extremely successful.

33. Gradually, the Länder are also preparing their own Land-specific climate-protection programmes. An important reason why such programmes must be developed and implemented is that in many areas the Länder have executive competency.

34. Since 1990, many communities have begun developing and implementing community CO_2-reduction concepts, often on the basis of existing energy-supply concepts. To date, far more than 100 such concepts have been developed. Increasingly, head community associations are giving greater attention to this topic. In addition, communities are organising themselves, on the European level, into an international climate-protection alliance. This alliance has the extremely ambitious goal of reducing CO_2 emissions in its member communities by 50% by the year 2010, in relation to 1987 levels.

35. In November 1991, central German industry associations presented a paper describing an initiative for world-wide precautionary measures to protect climate. In this paper, German

industry emphasises that it is willing to do its part to combat the greenhouse effect. The paper also makes clear that industry considers self-commitment declarations and compensation solutions to be effective climate-protection instruments. Since 1992, the Federal Government has been conducting intensive discussions with industrial representatives concerning the specific details of this initiative paper.

36. Other groups that have been very intensively discussing climate protection include unions, environmental protection associations, consumer organisations, churches and other groups that play an important role in society. The aim of these initiatives is to make it clear to each person that he or she can make a decisive contribution to combatting the global greenhouse effect.

Emissions scenarios

37. The development of energy-related and non-energy-related emissions of methane (CH_4), nitrous oxide (N_2O), nitrogen oxides (NO_x), carbon monoxide (CO) and methane-free volatile organic compounds (NMVOC) until the year 2005 was estimated. For the case of energy-related emissions, two existing studies were used as a basis that do not conform completely with the CO_2-reduction programme. For the non-energy-related emissions, the current framework is used as the basis for forecasts. Table III lists the emissions reduction for these greenhouse gases (both energy-related and non-energy-related) until the year 2005, in relation to 1987 (where data is available) and 1990 emissions levels. Further reductions of greenhouse-gas emissions can be achieved through additional measures.

Research and systematic observation

38. Research into climate systems, and into the consequences of climate change, is among the emphases of German environmental research. Climate-system research is seeking to obtain reliable statements concerning the development of global climate and, especially, concerning development of regional climate. The purpose of research into the consequences of climate change is to estimate the possible effects of climate change. As part of such research, the interactions between climate and sensitive natural and civilisation-built systems are being studied.

39. The Federal Government is also sponsoring research into means of easing the effects of climate change. These efforts are aimed at providing the necessary action-oriented knowledge, and technology, in the areas of environmental protection and energy, for reduction of greenhouse-gas emissions. They are also focused on identifying options for action to deal with the effects of climate change. Table II (especially in its "New Technologies" section) lists specific measures for supporting research into means of easing the effects of climate change.

40. But more than scientific and technological solutions to environmental problems are now required, if environmental problems are to be permanently solved; for this reason, overall efforts are increasingly also incorporating social and economic approaches.

41. The Federal Republic of Germany's research programmes have been incorporated into major international programmes such as the World Climate Research Programme and the International Geosphere and Biosphere Programme.

42. The comprehensive measurement programmes that are also being carried out through international cooperation (such as within the Global Atmosphere Watch or the establishment of the Global Climate Observing System) provide an important basis for assessing the current state of the climate system and of anthropogenic influences on it. Data centres and databases are currently being established that will provide relevant collected data to the public in a suitable form.

Training, education and public awareness

43. Because global climate change is a long-term process, education, training and promotion of public awareness are of central importance. The entire population has a responsibility to translate its high level of environmental awareness into an appropriate willingness to act and cooperate in avoiding future environmental damage. This is why the Federal Government and the Länder are conducting a campaign of intensive environmental information. The topic of environmental protection has been solidly integrated into school education, which lies within the responsibility of the Länder. A range of training and education measures focusing on climate protection has been carried out by the Federal Government and other sponsors. Table II lists individual measures for providing environmental information, training and education.

International cooperation in the areas of technology and finance

44. The Federal Government strongly supports adherence to the guidelines set forth in the Rio Declaration, and is orienting its bilateral and multilateral cooperation in the area of development to the aim of implementing the Declaration's Agenda 21.

Bilateral cooperation

45. In the area of energy, a focus of the Federal Government's cooperation in the area of development, some 13 billion DM were provided between 1961 and 1993, within the framework of financial cooperation; some 1.1 billion DM were provided within the framework of technological cooperation. Of this funding, some 2.5 billion DM were spent on hydroelectric power generation; some 500 million DM were spend on other renewable energies. In addition, the Federal Government spends 300 million DM annually in helping other countries conserve their tropical rain forests. The Federal Government is also

supporting developing countries' measures to reduce methane emissions in connection with the keeping of livestock, as well as studies in such countries on reducing methane and laughing gas emissions in rice cultivation.

46. In 1992, the Federal Government also created a consultancy assistance programme for central and eastern European countries. By 1993, over 150 projects in the area of environmental protection had been carried out within this programme. In addition, some 41 million DM was spent in 1992 and 1993 on selected environmental-protection projects in central and eastern Europe.

47. In 1992, the Federal Government made available 5 million DM in special funding; these funds are being used to help some 10 developing countries prepare their national reports.

Multilateral cooperation

48. In a pilot phase lasting from 1991 to 1993, and which was supported with approx. 1 billion DM worth of special-draft loans (central fund plus co-financing), the Federal Republic of Germany paid 147 million US$ into the central fund of the Global Environmental Facility (GEF). For the period lasting from mid-1994 to mid-1997, the Federal Republic of Germany has committed itself to payment of 240 million US$ (ca. 12% of the total volume of some 2 billion US$) into this fund.

49. The Federal Republic of Germany strongly supports taking an internationally coordinated approach. It is cooperating within the European Union (EU) and in multilateral government organisations such as the Organisation for Economic Cooperation and Development (OECD), the International Energy Agency (IEA), the United Nations Environment Programme (UNEP), the UN's Economic Commission for Europe (ECE), the World Meteorological Organisation (WMO) and the Intergovernmental Panel on Climate Change (IPCC), and it is making substantial contributions to these organisations' initiatives in the area of climate policy.

50. The Federal Government took an active role in preparing the resolutions of the EU's Joint Environmental and Energy Council of 29 October, 1990, 13 December, 1991 and June 1992, as well as the various Council resolutions concerning the European Union's CO_2-reduction strategy. Within the EU framework, it continues to support passage of an effective joint CO_2-reduction strategy.

51. The European Commission's proposal for a Council directive on the introduction of a tax on CO_2 emissions and energy, dated 4 June, 1992, is a focus of current discussion. The Council is still deliberating intensively on this proposal. The Federal Government considers the introduction of an (at least) EU-wide CO_2/energy tax, neutral with regard to competition and total tax-revenue volume, to be a necessary instrument for achieving goals in this area - both national and European goals. During its EU presidency, the Federal Government continues to pursue the issue of the above-mentioned CO_2/energy tax.

Outlook

52. The Federal Government plans to concentrate its future work within the Interministerial Working Group on CO_2 reduction on the following areas of action:

- Reduction of CO_2 emissions,
- Reduction of methane emissions (CH_4) from energy production, energy transport, energy distribution and energy use; from agriculture; from waste treatment; and from wastewater treatment,
- Reduction of nitrous oxide emissions (N_2O),
- Reduction of the precursor substances of tropospheric ozone, i.e. of nitrogen oxides (NO_x), carbon monoxide (CO), methane-free volatile organic compounds (NMVOCs) and
- Reduction of emissions of other greenhouse gases (including CF_4 and C_2F_6).

53. The results achieved to date, in sum, have noticeably reduced Germany's share of world-wide greenhouse-gas emissions. The aim of the Federal Government's climate-protection programme is to reduce Germany's share of anthropogenic emissions by about half, by the year 2005 - based on 1987 levels. World-wide, these efforts are without parallel, and the Federal Government expects that other countries will follow Germany's example.

54. The Federal Government will continue to take an active role in implementing national and EU-wide climate-protection strategies, and in efforts to achieve a globally coordinated strategy for combatting the anthropogenic greenhouse effect. This applies especially to implementation and promotion of further development of the Framework Convention on Climate Change. The 1st Conference of the Parties, to be held in Berlin from 7 April to 28 May, 1995, will be an important step in these efforts.

Table 1: Summary of emissions of greenhouse gases in Germany in 1990

Sources and sinks of greenhouse gases	CO_2 Mt/a		CH_4 kt/a		N_2O kt/a		NO_x as NO_2 kt/a		CO kt/a		NMVOC not including CFCs/CCs kt/a	
Total emissions	1 012		6 218		...3		2 944		10 768		2 978	
	709	303	5 015	1 203	183	40	2 377	566	7 131	3 637	2 234	744
1. Energy-related	983		1 767		33		2 923		10 104		1 679	
	687	296	1 574	193	24	9	2 361	561	6 526	3 578	1 093	586
2. Industrial processes	29		11		100		21		664		129	
	22	7	9	2	95	5	16	5	605	59	111	18
3. Use of solvents and products					6						1 170	
					5	1					1 030	140
4. Agriculture			2 043		80		n.a.		n.a.		n.a.	
			1 497	546	55	25	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
5. Land use changes and forestry[1]	- 20											
	- 14	- 6										
6. Waste management	n.a.		2 397		4		n.a.		n.a.		n.a.	
	n.a.	n.a.	1 935	462	4	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

Table 1: Summary of emissions of greenhouse gases in Germany in 1990 (continues)

High-seas bunkering[1]	8		0		n.a.		155		37		16	
	7	1	0	0	n.a.	n.a.	128	27	31	7	13	3
International air transport[1]	11		0		n.a.		50		58		9	
	11	1	0	0	n.a.	n.a.	49	2	54	4	9	1

n.a. Not available

[1] Not included in total emissions

Source: Federal Environment Agency

Germany	
Former West Germany	Area of the former GDR

Table 2: Individual measures of the Federal Government that contribute to reduction of emissions of CO_2 and other greenhouse gases)

A. Measures that have already been approved and that are being/have been implemented

Energy supply:

	Measures
(1)	Federal table of charges for electricity
(2)	Support for local and regional energy-supply and climate-protection concepts
(3)	Act on the Sale of Electricity to the Grid
(4)	Elimination of the excise duty on lamps
(5)	Federal Government/Länder district-heating modernisation programme for the area of the former GDR
(6)	Funding for renewable energies
(7)	Energy-saving programme of the European Recovery Programme (ERP)
(8)	Support for advising of small and medium-sized companies concerning energy-saving
(9)	Support of the *Forum für Zukunftsenergien* (Future Energy Forum)
(10)	Information on use of renewable energies
(11)	Information on saving energy and efficient energy use
(12)	Acceleration of authorisation procedures by removing wind-energy systems from the 4th Ordinance on Execution of the Federal Immission Control Act (*4. BImSchV*)
(13)	Tax breaks for heat/power cogeneration plants

Traffic and transport:

	Measures
(14)	Increase of the mineral-oil tax
(15)	Emissions-oriented motor-vehicle tax (1st phase)
(16)	1992 Federal Traffic Infrastructure Plan
(17)	Increasing the attractiveness of local public transportation
(18)	Lowering of NMVOC emissions from vehicle refuelling, as a result of the Gas-balance System Ordinance
(19)	Programme of research into urban traffic (*Forschungsprogramm Stadtverkehr - FOPS*)
(20)	Improving continuity of traffic flow
(21)	Information on energy-saving and environmentally aware driving habits
(22)	Research projects and information concerning urban traffic planning and decreasing traffic pollution in cities
(23)	Railway structural reform
(24)	Freight centres
(25)	Combined transport using waterways
(26)	Research programme on "Pollution in Aviation"
(27)	Traffic research
(28)	Deregulation of goods transports on roads by means of the Tariffs-elimination Act(*Tarifaufhebungsgesetz*)

Buildings and structures:

	Measures
(29)	Amendment of the Thermal Insulation Ordinance (*Wärmeschutzverordnung - WSchV*)
(30)	Amendment of the Heating-systems Ordinance (*HeizAnlV*)
(31)	Advising concerning energy-saving, efficient energy use in housing structures - on-site advising
(32)	Tax breaks through the Support-area Act (Fördergebietsgesetz), pursuant to the 1991 Tax-Amendment Act of 24 June, 1991 and the Act on Securing the Futures of Sites (*Standortsicherungsgesetz*) of 13 September, 1993
(33)	Housing modernisation programme of the Kreditanstalt für Wiederaufbau (KfW) reconstruction bank
(34)	The joint programme "Economic Recovery in eastern Germany"
(35)	Subsidies for construction of public (low-rent) housing
(36)	Programme of research into experimental city and housing planning: "Reducing pollution in city planning" (*Schadstoffminderung im Städtebau*)
(37)	Acceleration of authorisation procedures by means of the investment-facilitation and housing-construction-site act (*Investitionserleichterungs- und Wohnbaulandgesetz*)
(38)	Reduction of barriers to investment in housing construction in the area of the former GDR, for cases in which ownership questions have not been settled
(39)	Information for building owners, architects, planners, engineers, craftsmen

New technologies:

	Measures
(40)	Specialised programme on environmental research and technology
(41)	Research into, and technical refinement of, power-plant and firing-plant technology, especially clean coal-firing technology
(42)	Research and development concerning gas and steam turbine power plants
(43)	Research and development concerning use of renewable energies
(44)	Programme for promotion of photovoltaic systems
(45)	Support for testing wind-power systems: "250 MW Wind"
(46)	"Solarthermie 2000" solar-energy promotion programme
(47)	Research and development concerning use of solar energy
(48)	Research and development concerning secondary energy systems integrated with renewable-energy systems
(49)	Research and development concerning efficient energy use
(50)	Nuclear energy research/reactor-safety research
(51)	Nuclear-fusion research
(52)	Research into thermal treatment of waste
(53)	Test project entitled "Generation of heat and power from renewable raw materials"
(54)	Geothermic energy

Agriculture and forestry:

	Measures
(55)	Joint task "Improvement of Agricultural Structure and Coastal Protection"
(56)	Bonuses for land set-asides
(57)	Improvement of animal digestive efficiency as part of animal husbandry, in order to reduce methane emissions
(58)	Support for extensive methods of agriculture
(59)	Conservation of existing forests
(60)	Support for new afforestation
(61)	Forest-management measures
(62)	Tax exemptions for pure rape methyl ester (RME)
(63)	Agency for renewable raw materials (Fachagentur Nachwachsende Rohstoffe)
(64)	Proposal for a fertilizer ordinance

Waste-management sector:

	Measures
(65)	Ordinance on packaging
(66)	Technical Instructions on Municipal Waste Management (*TA-Siedlungsabfall*)
(67)	Technical Instructions on Waste, Part 1
(68)	Waste Management and Product Recycling Act

Overarching measures:

	Measures
(69)	Improvement of training and continuing training for architects, engineers, technicians and craftsmen
(70)	Support programme of the Deutsche Bundesstiftung Umwelt (DBU)
(71)	Investment programme for reducing environmental pollution (Federal Ministry for the Environment, Nature Conservation and Nuclear Safety)
(72)	Environmental programme of the Kreditanstalt für Wiederaufbau (KfW) reconstruction bank
(73)	Environmental programme of the Deutsche Ausgleichsbank
(74)	Environmental protection guarantee programme: liability exemption in connection with the supplementary loans programme III (*Ergänzungsdarlehen III*) for subsidising manufacturers of preventative environmental protection technology
(75)	Federal/Länder joint task "Improvement of the regional economic structure"
(76)	Financial support of the economic infrastructure in the area of the former GDR - improvement of the regional economic structure in connection with support for municipal infrastructures
(77)	Advising concerning thrifty, efficient energy use, provided by the *Arbeitsgemeinschaft der Verbraucherverbände (AgV)* consumer associations' working group, on commission to the Federal Ministry of Economics
(78)	Support for advising of small and medium-sized companies concerning environmental protection and energy use
(79)	Orientation advising on environmental protection for small and medium-sized companies (area of the former GDR)
(80)	Orientation advising on environmental protection for communities in the area of the former GDR
(81)	Community loan programme - area of the former GDR
(82)	Air quality control programme of the European Recovery Programme (ERP)
(83)	Technical information concerning efficient energy use and use of renewable energies
(84)	Studies on optimising the CO_2-reduction programme
(85)	Amendment of the Fee Table for Architects and Engineers (HOAI)
(86)	Research into specific approaches to regulatory tools
(87)	System analysis within the Instruments for Climate-gas-reduction Strategies (IKARUS) project
(88)	Environmental certification mark (*Umweltzeichen*)

B. Measures that are currently being approved by the relevant decision-making bodies, or whose approval is currently being prepared or is currently planned:

Energy supply:

	Measures
(89)	Amendment to the Energy Management Act
(90)	Proposal for an Ordinance on Heat Use

Traffic and transport:

	Measures
(91)	Raising of the minimum EU levels for mineral-oil tax
(92)	Emissions-related motor-vehicle tax (2nd phase)
(93)	Tolls for use of certain roads
(94)	CO_2 emissions of new motor vehicles
(95)	German railways' site concept
(96)	Use of modern information technology for preventing and regulating traffic (telematics)
(97)	Taxation of aircraft fuels
(98)	Amendment of the Common Rules of Procedure (*Gemeinsame Geschäftsordnung*) of the federal ministries
(99)	Introduction of traffic-effects studies
(100)	Shifting of international transit traffic from roads to railways and to ships

Buildings and structures:

	Measures
(101)	2nd Ordinance for Amendment of the Ordinance on Small Combustion Plants (1st Federal Immission Control Ordinance)
(102)	Instruments for increasing energy efficiency of existing buildings
(103)	Special relevant privileges accorded within the building code
(104)	Standardisation of authorisation practices for renewable energy system

Overarching measures:

	Measures
(105)	Improvement of the framework for vocational training and for continuing education and training
(106)	Support for provision of information concerning third-party financing models
(107)	Introduction of an (at-least) EU-wide CO_2/energy tax that has a neutral effect with regard to competition and total tax-revenue volume
(108)	Law on mandatory labelling with regard to energy consumption (product labelling)
(109)	Planning of the parliament and government district in Berlin with regard to environmental protection requirements, especially climate-protection requirements

Table 3: Changes in emissions of the greenhouse gases CH_4, N_2O, NO_x, CO and NMVOC by the year 2005, in relation to 1987 and 1990 levels, and according to trend estimates (energy-related and non-energy-related emissions)[1)]

	Emissions change in %	
	1987 - 2005	**1990 - 2005**
Methane (CH_4)	- 50	- 48
Nitrous oxide (N_2O)	n.a.	- 25
Nitrogen oxides (NO_x)	- 36	- 25
Carbon monoxide (CO)	- 58	- 51
Methane-free volatile organic compounds (NMVOC)	- 47	- 43

1) Further reductions of greenhouse-gas emissions can be achieved by means of additional measures.

n.a. = No figures provided, because the relevant data is incomplete.

Source: Federal Environment Agency